Remarks

Rejections under 35 U.S.C. §103(a)

Claims 1-4, 19-22, 36 and 45 were rejected under 35 U.S.C. §103(a) as anticipated by

Skene et al (hereinafter "Skene") U.S. Publication 20010049741 in view of Hejza et al. (U.S.

Patent 6,577,628).

Skene:

Skene describes:

"...A system and method for balancing the load on virtual servers managed by server array controllers at separate data centers that are geographically distributed on a wide area network such as the Internet. The virtual servers provide access to resources associated with a domain name request by a client program. When a Primary Domain Name System (DNS) determined the requested domain name is delegated to a EDNS, the EDNS employs metric information and statistics to resolve an ip address for a virtual server that is selected by the EDNS to optimally balance the load and provide access to resources associated with the domain name. *The EDNS may employ a static or a dynamic load balancing method to select the virtual server most suited to balance the load across all of the virtual servers...*" (Skene, Abstract)

Hejza:

Hejza describes, in the Abstract:

"...A method and apparatus are provided for implementing Quality of Service (QoS) in a network environment in which client connections are maintained for limited periods of time. According to one embodiment, packet forwarding devices of a network, such as routers, bridges, and Local Area Network (LAN) switches, are caused to forward packets associated with a client according to a particular class of service, e.g., best-efforts, premium service, associated with the user of the client by assigning a network address, e.g., an Internet Protocol (IP) address, to the client based upon the particular class of service. According to another embodiment, a method of configuring the packet forwarding devices in a network is provided. For each class of service supported, information identifying one or more ranges of network addresses that are to receive a particular measure of service associated with the class of service is communicated to the packet forwarding devices...."

Thus Hejza describes a system in which certain clients having a certain quality of service

requirements are assigned IP addresses based on their quality of service. As a result, client

requests can be more quickly forwarded as they are routed through the network. Note that such a

teaching pays no regard to load balancing of the client requests as they are forwarded to routers, but rather deals with the order of priority of forwarding of the requests once they reach a certain device.

In contrast, the present invention is directed at a system and method which intelligently load balances client requests for web pages based *both* on the quality of service associated with the client *as well as the ability of the server of the web page to meet the desired quality of service*. Although Hejza assigns IP addresses to client in accordance with their contracted quality of service, and Skene performs load balancing, the combination of references fails to describe a system such as claim 1 which performs load balancing based on a quality of service of a client requesting a web page and the ability of an alternate server to service the web page at the contracted quality of service.

For example, claim 1 recites the steps of "...receiving, from a client device, a request for a network address that is associated with a service, *the request including a client identifier and a service authorization handle comprising authorization information for indicating that the client is authorized for a level of service for the handling of the request*; ... selecting, *in response to the service authorization handle*, a respective network address from a plurality of network addresses **each of which corresponds to a corresponding plurality of servers that are available to provide said service**; and transmitting, to said client device, said respective network address so that said client device may transmit at least one service request associated with said service to the respective server associated with the respective network address..."

Applicants fail to see how the combination of Hejza and Skene fail to teach a system that performs load balancing based on an authorized service level and the ability of the servers to deliver the service.

The Examiner states, at page 3 of the office action:

"... it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Skene by associating a service level with a user to provide a quality of service in a network environment in order to off clients various levels of service at different price points..."

As stated in M.P.E.P. §2143 :

"...To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations..."

<u>No motivation can be found for combination of references as suggested by the Examiner</u>

It is well known that "There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet,* 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998)..." "In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

However, the mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). The Examiner cites the desirability as 'to offer clients various levels of service at different price points...' However, Applicants respectfully submit that no such motivation for modifying the references to reach the language of the claims can be found in either Skene, Hejza or the combination thereof. Rather, it would appear that the only teaching of such a benefit can be found in Applicant's specification. As a result, as it appears that the Examiner is using improper hindsight based on the teaching of Applicant's specification, it is submitted that the rejection is improper and requested that it be withdrawn.

Combination neither describes nor suggests claimed invention

As described above, although Skene describes a method of load balancing wherein "*...The EDNS may employ a static or a dynamic load balancing method to select the virtual server most suited to balance the load across all of the virtual servers ...*" Skene neither describes nor suggests making the determination for load balancing based upon the quality of service of the client requesting access to a service and the ability of servers to provide the quality of service; rather, Skene explicitly states that it attempts to balance the load across all virtual servers. In addition, although Hejza describes network address partitioning based on a quality of service associated with the client, Hejza is not concerned with load balancing. In particular, Hejza is not concerned with the ability of any particular server to handle a particular request because requests associated with high priority network addresses will always receive preferential

treatment; Hejza ensures this by using address partitioning to expedite high priority requests across all servers. Applicants would respectfully submit that the only proper combination of Skene and Hejza would result in a system wherein client addresses were partitioned based on quality of service of the client, and client requests were balanced across all nodes; without regard the whether each node is able to meet the quality of service. Because the network addresses are segmented in a particular manner, the Hejza invention will ensure that a proper quality of service is applied to all requests from the particular client by controlling the output queues in the servers of Skene to service the network addresses

Accordingly, for at least the reason that the combination of Skene and Hejza fail to describe or suggest the claimed limitations of "... receiving, from a client device, a request for a network address that is associated with a service, *the request including a service authorization handle for indicating that the client is authorized for a level of service* for the handling of the request ... selecting, *responsive to the service authorization handle,* a respective network address from a plurality of network addresses corresponding to a plurality of *servers that are available to provide said service...*" it is requested that the rejection of the claims under 35 U.S.C. §103 be withdrawn. Independent claim 19 includes limitations similar to those of claim 1 and is allowable for at least the same reason as claim 1.

Dependent claims 2-4 and claims 20-22 serve to add further patentable limitations to respective independent claims 1 and 19, and thus are allowable for at least the same reasons as their parent claims.

Conclusion:

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Applicants' Attorney at the number listed below so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

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